

ZAJTZ, Andrzej

Differentiability premises in the general helical curve.  
Prace matem Krakow no. 9:93-97 '63.

ZAJTZ, A.

Theorem on the functions of the matrix arguments. Bul Ac Pol  
mat 10 no.7:365-367 '62.

1. Katedra Geometrii, Uniwersytet Jagiellonski, Krakow.  
Presented by A. Mostowski.

GIEC, Leszek; SZPECHT, Jozef; ZAJUSZ, Kazimierz

A case of Zollinger-Ellison syndrome. Polski tygod. lek. 14 no.24:  
1101-1104 15 June 59.

1. (S III Kliniki Chorob Wewnetrznych Sl. Akad. Med. w Bytomiu;  
kierownik: prof. dr K. Gibinski, z Zakladu Histologii Sl. Akad.  
Med. w Rokitnicy; kierownik naukowy: prof. dr T. Pawlikowski i z  
Prosektorium Szpitala Zespoleonego nr 2 w Bytomiu.  
(PEPTIC ULCER, compl.) (ISLET CELL TUMOR, compl.)

243 052, 112-1140-2  
NIEBROJ, Tadeusz; ZAJUSZ, Kazimierz.

Modification of plasmal and fats contents in the digestive system following feeding. Pol.morph., Warsz. 6 no.2:105-119 1955.

1. Z Zakladu Histologii Prawidlowej i Embriologii Slaskiej A.M.  
Kierownik: prof.dr T. Pawlikowski, Zabrze 8, Sl. K.Marksa 19,  
Zaklad Historii i Embriologii Sl. A.M.

(PLASMALOGEN,

plasmal in gastrointestinal system, eff. of food in guinea pigs)

(FOOD, effects,

on gastrointestinal fat & plasmal in guinea pigs)

(FATS,

in gastrointestinal system, eff. of food in guinea pigs)

(GASTROINTESTINAL SYSTEM, physiology,

fat & plasmal content after feeding in guinea pigs)

EXCERPTA MEDICA Sec.3 Vol.10/7 Endocrinology July56

1254. ZAJUSZ K. and KOKOT F. Zakt. Histol. Embriologii Śląskiej. \*Wpływ witaminy E na wyspy Langerhansa krowki i na cukrzycę aloksanową. The influence of vit. E on the islets of Langerhans and on alloxan diabetes in rabbits ACTA PHYSIOL. POL. 1955, 6/3 (339-348) Tables 2 Illus. 5

Daily administration of large doses of vit. E (50 mg. per kg. body weight) caused a dilatation of the sinusoid vessels in the islets, a partial degranulation of the  $\beta$ -cells and a shift in the  $\alpha$  and  $\beta$  cell ratio. As new small islets composed exclusively of  $\alpha$  cells appeared, the number of those cells in the whole organ increased.

KOKOT, Franciszek; ZAJUSZ, Kazimierz; CHELMIN, Jan

Effect of prolonged administration of barbiturates on sugar curve and on histological picture of islands of Langerhans in rats. Pat. polska 7 no.3:241-246 July-Sept 56.

1. Z Zakladu Farmakologii Eksperymentalnej Slaskiej A.M. Zabrze-Rokitnica, Kierownik: doc. dr. J. Jeske, i z Zakladu Histologii i Embriologii Slaskiej A.M. Zabrze-Rokitnica Kierownik: prof. dr. T. Pawlikowski, Zabrze, K. Marksa 19.

(BARBITURATES, effects

on blood sugar & islands of Langerhans in rats (Pol))

(BLOOD SUGAR, effect of drugs on,

barbiturates in rats (Pol))

(ISLANDS OF LANGERHANS, effect of drugs on,

same)

ZAJUSZ, Kazimierz; KONECKI, Janusz

Diurnal changes in the islands of Langerhans in mice. Pat. polska  
9 no.2:127-134 Apr-June '58.

1. Z Zakładu Histologii i Embriologii Sl. A.M. Kierownik: prof.  
dr. T. Pawlikowski. Adres autora: Zabrze-Rokitnica, ul. Marksa 15,  
Zakład Histologii i Embriol. Sl. A.M.

(ISLANDS OF LANGERHANS, anat. & histol.  
diurnal changes in mouse cells (Pol))

(PERIODICITY,  
diurnal changes in islands of Langerhans cells in mice.  
(Pol))

ZAJUSZ, Kazimierz; KONIECKI, Janusz

Experiments on the effects of Ez-55 on certain organs in rabbits. Pat.  
polska 9 no.3:265-269 July-Sept 58.

1. Z Zakładu Histologii i Embriologii Śląskiej A. M. Hierownik: prof.  
dr T. Pawlikowski. Zabrze, K. Marksa 19.

(ANTIDIABETICS, effects

carbutamide on adrenals, islands of Langerhaus & liver of  
rabbits (Pol))

(ADRENAL GLANDS, effect of drugs on  
carbutamide on rabbits (Pol))

(ISLANDS OF LANGERHAUS, effect of drugs on  
same)

(LIVER, effect of drugs on  
same)



198002. Karmiorz

About some problems of occupational medicine and hygiene in the  
German Democratic Republic. Pol. tyg. lek. 19 no. 48 1980-1983  
24 p. 1/2

1. P. Instytutu Medycyny Pracy, w. Przemyśle Węglowym i Hutniczym  
w Zabrzeżu-Głokitnicy (dyrektor: prof. dr. W. Fabianowski).

ZAJUSZ, Kazimierz; ILEWICZ, Leszek; ZALESKI, Wladyslaw

Phosphatases in dental pulp. Part 1. Czas. stomat. 18 no.11:  
1277-1283 N ' 65.

1. Z Pracowni Patologii Doświadczalnej Instytutu Medycyny Pracy  
w Przemysle Węglowym i Hutniczym w Zabrze (Kierownik: doc. dr.  
K. Zajusz) oraz z Zakładu Stomatologii Zachowawczej Śląskiej  
AM (Kierownik: doc. dr. Wl. Zaleski).

ZAJUSZ, Kazimierz

Studies on the new test of pathogenic activity of silica.  
Gruzlica 33 no.9:759-767 S ' 65.

1. Z Pracowni Patologii Doswiadczalnej Instytutu Medycyny  
w Przemysle Weglowym i Hutniczym (Kierownik: doc. dr. med.  
K. Zajusz).

ZAJUSZ, Kazimierz

Studies on the development of island of Langerhans. III. Histogenesis of islands in various parts of the pancreas in man ~~and~~ in other mammals. Endokr. Pol. 13 no.2:165-180 '62.

1. Zaklad Histologii i Embriologii Slaskiej Akademii Medycznej b.  
Kierownik: prof. dr T. Pawlikowski.

(ISLANDS OF LANGERHANS embryol)

JONEK, Jan; ZAJUSZ, Kazimierz

Effect of acid sodium carbonate on experimental silicosis in white mice. Pat.polska 12 no.1:41-52 '61.

1. Z Instytutu Medycyny Pracy w Zabrze-Rokitnicy Dyrektor: prof.  
dr B. Nowakowski.  
(SILICOSIS exper) (CARBONATES pharmacol)

PAWLIKOWSKI, Tadeusz; NIEBRQJ, Tadeusz; ZAJUSZ, Kazimierz

Experimental studies on the effect of hyaluronidase on pulmonary  
silicotic changes in rats. Pat. polska 10 no.1:61-71 Jan-Mar 59.

1. Z Zakladu Histologii i Embriologii Slaskiej Akademii Medycznej  
Kierownik: prof. dr T. Pawlikowski oraz z Panstwowego Instytutu  
Medycyny Pracy Dyrektor: prof. dr B. Nowakowski. Adres autorow:  
Lodz, ul. Nowotki 137.

(SILICOSIS, experimental,  
eff. of hyaluronidase (Pol))  
(HYALURONIDASE, effects,  
on exper. silicosis (Pol))

CERNIK, Oldřich; GASEK, inz.; STRIBRNY, A.; NOVOTNY, V.; ROUCKA, inz.;  
JERIE, dr.; BENDA, O.; HINKE, dr.; HOMOLA, F., inz.; SPETL, doc.,  
inz., dr.; ZAK, inz.; ZEMAN, inz.; PAVLICEK, Z., inz.; VESELY, B.,  
inz.; KUCERA, Fl., inz.; VALD, V.

Main trends and goals in increasing the utilization of fuels and  
energy in the national economy in long range planning up to 1970.  
Energetika Cz 12 no.12:Suppl.:Energetika 11 no.12:1-14 '62.

1. Ministr paliv a energetiky (for Cernik).

VETRA, K.; KAKHAN, L. [Kahan, L., translator]; ZAK, A. [Zaks, A.], red.  
ENGERE, L., tekhn. red.

[The Vidzeme Upland] Vidzemskaia vozvyshehnost'. Riga, Lat-  
viiskoe gos. izd-vo, 1957. 149 p. (MIRA 15:1)  
(Vidzeme Upland—Guidebooks)



HELKINA, R.; ZAK, A.

Finances of house-building combines. Fin.SSSR 37 no.3:34-37  
(MIRA 16:4)

Mr '63.

(Construction industry—Finance)

ZAJZON, Zoltan

On the questions of training Hungarian geodesists at secondary level. Geod kart 14 no.3:196-197. '62.

POLAND

ZAK, Andrzej, Lek wet. and POLEWSKI, Konrad, Dr. chem. of  
the Department of General Chemistry (Zaklad Chemii Ogolnej)  
of the AM [Akademia Medyczna, Medical Academy] in Poznan  
[Director: Acting Prof. Dr. Stanislaw PASZEJOWA]

"Attempt to Obtain Serum Against Human Protein for Immuno-  
electrophoretic Studies."

Warsaw-Lublin, Wedyyna Weterynaryjna, Vol 23, No 11, Nov  
62, p 594.

Abstract: Authors describe experiments to obtain gelding  
serum immunized against human protein. Results unsatisfac-  
tory. Five references, of which two are Polish and three  
Western.

- END -

1588, 2451  
CSO: 2000-N

PO/0100/66/014/005/0662/0669

POLAND

AUTHOR: Prastowski, Wieslaw (Wroclaw); Zak, Aleksander (Wroclaw)

ORG: Department of Pharmacology, Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Wroclaw

TITLE: Central action of new barbituric acid derivatives

SOURCE: Archivum immunologiae et therapeuticae experimentalis, v. 14, no. 5, 1966, 662-669

TOPIC TAGS: nervous system drug, drug effect, barbituric acid, mouse, toxicity

ABSTRACT: The data presented in Tables 1—3 show respectively the chemical structure, toxicity and neuromuscular effects of a series of N-substituted, alkyl- or alkylaryl-substituted barbituric acid derivatives, all of which possessed hypnotic and/or sedative, but not tranquilizing, properties. N-substituted derivatives showed similar action regardless of the radical. They did not affect strychnine poisoning and were not caffeine antagonists. The 5-substituted compounds exerted hypnotic action and diminished spontaneous mobility in mice. Toxicity increased when the hydroxyethyl radical of the cyclohexyl or pyridyl ring was in the beta position. Some compounds protected against strychnine poisoning.

1/4

Table 2. Toxicity and hypnotic properties of the studied preparations

Preparation	DL <sub>50</sub> (mg/kg)	DH <sub>50</sub> (mg/kg)	Narcotic coefficient (DH <sub>50</sub> : DL <sub>50</sub> )
I	650	405	0.62
II	225	140	0.68
III	>4000	—	—
IV	1125	914	0.81
V	1565	1270	0.81
VI	1000	375	0.37
VII	325	325	1.0
VIII	1313	1313	1.0
IX	2260	—	—

Table 3. Influence of the studied preparations on spontaneous mobility in mice

Preparation	Dose	Movements of mice (as percentages of controls)
I	1/5 DL <sub>50</sub>	82
II	1/10 DL <sub>50</sub>	238
III	1/5 DL <sub>50</sub>	50
IV	1/5 DL <sub>50</sub>	36
V	1/5 DL <sub>50</sub>	40
VI	1/10 DL <sub>50</sub>	134
VII	1/5 DL <sub>50</sub>	135
VIII	1/5 DL <sub>50</sub>	35
IX	1/5 DL <sub>50</sub>	45
Control	tylosin	100

SCHOEMAN, Henryk, mgr inz.; ZAK, Alfred, mgr inz.

The UKF AM/FM/VM signal generator model R-701/62. Pr.egl  
telekom 35 no.5/6:186-188 Ky-Je '63.

ZAK, A.

Chemistry at the 24th Poznan International Fair. p. 235. CHEMIK.  
Vol. 8, no. 9, Sept. 1955. Katowice.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

ZAK, A.

Extracting sulfur from sulfur deposits. p. 293. CHEMIK. Katowice.  
Vol. 8, no. 10, Oct. 1955.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956



DUSHEN'KINA, S.; ZAK, A.

Organization of planning and business accounting. Fin. SSSR 21  
no. 11:27-31 N '60. (MIR: 13:11)

(Architecture--Designs and plans)  
(Construction industry--Finance)

ACC NR: AP6035673

(A<sub>1</sub>N)

SOURCE CODE: PO/0100/66/014/005/0662/0669

AUTHOR: Prastowski, Wiesław (Wrocław); Zak, Andrzej (Wrocław)

ORG: Department of Pharmacology, Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Wrocław

TITLE: Central action of new barbituric acid derivatives

SOURCE: Archivum immunologiae et therapiac experimentalis, v. 14, no. 5, 1966, 662-669

TOPIC TAGS: ~~central~~ nervous system, <sup>drug</sup> drug effect, barbituric acid, ~~pharmacology~~ mouse, toxicity

ABSTRACT: The data presented in Tables 1—3 show respectively the chemical structure, toxicity and neuromuscular effects of a series of N-substituted, alkyl- or alkylaryl-substituted barbituric acid derivatives, all of which possessed hypnotic and/or sedative, but not tranquilizing, properties. N-substituted derivatives showed similar action regardless of the radical. They did not affect strychnine poisoning and were not caffeine antagonists. The 5-substituted compounds exerted hypnotic action and diminished spontaneous mobility of mice. Toxicity increased when the hydroxyethyl radical of the cyclohexyl or pyridyl ring was in the beta position. Some compounds protected against strychnine poisoning.

Card 1/4

ACC NR: AP6035673

Table 1. Chemical structure of the multi-1 preparation

$$\begin{array}{c}
 R_1 \text{ CO } R_2 \\
 | \\
 \text{CO} \quad \text{C} \\
 | \quad | \\
 \text{H} \quad \text{CO} \quad R_3 \\
 | \\
 R_4
 \end{array}$$

Group	Preparation	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
A	I	-CH <sub>3</sub>	-CH <sub>3</sub>	-CH <sub>2</sub> -CH-CH <sub>3</sub>   OH
	II	-CH <sub>3</sub>	-CH <sub>3</sub>	-CH <sub>2</sub> -CH=CH <sub>2</sub>
B	III	-CH <sub>2</sub> -CH <sub>2</sub>   OH	-CH <sub>3</sub>	H
	IV	-CH <sub>2</sub> -CH-   OH	-CH <sub>3</sub>	H
	V	-CH <sub>2</sub> -CH-   OH	-CH <sub>3</sub>	H
C	VI	-CH <sub>2</sub> -CH-CH <sub>2</sub>   OH	-CH <sub>2</sub> -CH=CH <sub>2</sub>	H
	VII	-CH <sub>2</sub> -CH-CH <sub>2</sub>   OCH <sub>3</sub>	-CH <sub>2</sub> -CH=CH <sub>2</sub>	H
D	VIII	OH   -CH <sub>2</sub> -CH-CH <sub>2</sub>   CH <sub>3</sub>	-CH <sub>3</sub>	H
	IX	OH   -CH <sub>2</sub> -CH-CH <sub>2</sub>   CH <sub>3</sub> CH <sub>3</sub>	-CH <sub>3</sub>	H

Card 2/4

ACC NR: AP6035673

Table 2. Toxicity and hypnotic properties of the studied preparations

Preparation	DL <sub>50</sub> (mg/kg)	DH <sub>50</sub> (mg/kg)	Narcotic coefficient (DH <sub>50</sub> : DL <sub>50</sub> )
I	650	405	0.62
II	225	140	0.68
III	>4000	—	—
IV	1125	914	0.81
V	1565	1270	0.81
VI	1000	375	0.37
VII	325	325	1.0
VIII	1313	1313	1.0
IX	2280	—	—

Table 3. Influence of the studied preparations on spontaneous mobility in mice

Preparation	Dose	Movements of mice (as percentages of controls)
I	1/5 DL <sub>50</sub>	82
II	1/10 DL <sub>50</sub>	238
III	1/5 DL <sub>50</sub>	50
IV	1/5 DL <sub>50</sub>	36
V	1/5 DL <sub>50</sub>	40
VI	1/10 DL <sub>50</sub>	134
VII	1/5 DL <sub>50</sub>	135
VIII	1/5 DL <sub>50</sub>	35
IX	1/5 DL <sub>50</sub>	45
Control	tylose	100

Card 3/4

ACC NR: AP6035673

nine and others against cardiazole. Derivatives containing an allyl radical in position 5 plus another radical increased spontaneous mobility in mice, potentiated chlorpromazine catalepsy, failed to protect against amphetamine and did not affect caffeine stimulation in mice. Compounds VIII and IX possessed no hypnotic activity, diminished spontaneous mobility and mobility in caffeine stimulated mice, did not protect against amphetamine and was a successful strychnine antagonist. Distinct synergism with chloral hydrate and c. pan was observed. Orig. art. has: 5 tables. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 00Sep65/ ORIG REF: 001/ OTH REF: 005

Card 4/4

ZAK, Allen

"I had a Russian camera..." Sov.foto 21 no.6:37 Ag '61.  
(MIRA 14:8)

(Russia--Relations (General) with the United States)  
(United States--Relations (General) with Russia)

CZECHOSLOVAKIA/Human and Animal Physiology (Normal and Patho- T  
logical). Nerve and Muscle Physiology.

Abs Jour: Ref Zhur-Diol., No 17, 1958, 79913.

Author : Zak, A.; Gutman, E.; Vrbov, O.

Inst :

Title : Quantitative Changes in Muscle Proteins After Direct  
Stimulation of Muscle.

Orig Pub: Ceskosl. fysiол., 1957, 6, No 3, 323-328.

Abstract: During direct electric stimulation of the anterior  
tibialis of a rat at the rate of 120 pul/min. there  
was noted immediately after stimulation an increase  
of the content of non-protein N by 20.8%; after 4  
hours, the increase was maintained at 20.6%. Imme-  
diately after stimulation at a rate of 300 pul/min.,  
the content of non-protein N decreased by 17.1%, and,

Card : 1/2

2AK, A.G.

5-3360

AUTHORS:

TITLE:

PERIODICAL:

ABSTRACT:

Card 1/2

75691  
50V/80-32-10-45,51  
Lishansky, I. S., Korotkov, A. A., Andre A. G. A.,  
Zak, A. G.  
Brief Communications. Concerning the Dehydration of  
n-Pentanol Over Aluminum Oxide  
Zhurnal Prikladnoi Khimii, 1959, Vol 32, No 10,  
pp 2344-2346 (USSR)

Dehydration of aliphatic alcohols over  $Al_2O_3$  leads to  
the formation of isomeric olefins. Dehydration of n-pen-  
tanol can give 5 possible isomeric olefins. With a boiling  
range between 20 and 40°C. Isolation of pentene-1  
is very difficult. Attempts were made to purify pentene-1  
by dehydration of n-pentanol accompanied by the 1-pentene-1  
isomerization. Two catalysts were used: a catalyst which  
was used for the dehydration of isopropyl alcohol at  
360°C and afterwards regenerated with air at 450°C for  
2 hr, and a freshly prepared catalyst. The activity of  
both catalysts was the same with respect to the total  
hydrocarbon yield. Pentene-1 content in the mixture

of pentenes changed with the amount of alcohol passed  
over the catalyst, and had a maximum 50.5% (mole %).  
The catalysts used in this work may be used in the  
assessing the efficiency of the catalysts in the  
different cases of isomerization of olefin isomers of  
various alcohols. The authors are grateful to the  
USSR Academy of Sciences for the support of this work.  
There is a figure, 1 table and 4 references. Chem. Abstr.  
2435. The U.S.S.R. Reference No. 6454 and 6455.  
Ind. Eng. Chem., 39, 1665 (1947); Pines, H., Reed, S.,  
J. Org. Chem., 23, 2, 325 (1958).

ASSOCIATION:

SUBMITTED:

Card 2/2

Institute of High-Molecular Compounds, Academy of  
Sciences USSR (Institute of Organic Chemistry, Academy  
of Sciences)  
January 29, 1959



ZAK, A.F.  
LEYBENZON, A.Ye.; ZAK, A.F.

[Producers of substances with antibiotic characteristics in  
microflora of medicinal mud and of the sea] Proizhizhennyye veshchestva  
antibioticheskoy prirody sredi mikroflory lechebnykh grazel i  
morei. Moskva, 1958. 126 p. (MIRA 11:6)  
(ANTIBIOTICS)

1542)

AUTHOR:

Zak, A. F.

SOV/72-59-11-7/1C

TITLE:

Some Properties of the Glass Fiber, and the Structure of Glass

PERIODICAL:

Steklo i keramika, 1959, Nr 11, pp 20-24 (USSR)

ABSTRACT:

According to I. V. Grebenshchikov, sodium-borosilicate glasses consist of a silicic oxygen framework filled with sodium borates. In figure 1, the influence of various oxides upon the chemical stability of the glass fiber is shown. Yu. P. Man'ko found in his experiments that the glass structure changes even with an insignificant change in the glass composition. The author considers the investigation of the deformation of the silicic fiber after acid treatment particularly interesting in connection with the investigation of the structure of glass fibers. Figure 2 shows fiber deformations. Numerous radiographical and optical investigations of silicate glass fibers failed to discover essential differences between the structures of glass and fiber. Investigations by V. V. Tarasov showed the presence of a chain structure of the silicic oxygen framework. The author, however, does not agree with this opinion. Figure 3 represents the dependence of the elasticity modulus of the fiber on the amount of

Card 1/2

Some Properties of the Glass Fiber, and the  
Structure of Glass

SOV/72-53-11-7/18

oxides removed from it. Figure 4 shows the change in the elastic aftereffect when the fiber is heated, and figure 5 the elastic aftereffect when the viscosity of the fibers of different compositions is changed. In conclusion, the author states that a further investigation of the interaction of thin glass fibers of different compositions with reagents, and an intensified investigation of the structures of leached fibers will help widen our concepts regarding the structure of glass. There are 5 figures.

Card 2/2

ZAK, A.F.; KILDOVA, N.Ye.; YERMOLOVA, O.B.; YAKOBSON, L.M.

Evaluation of the harmlessness of erythromycin based on data  
of various tests. Antibiotiki 10 no.7:622-623 J1 '65.  
(MIRA 18:9)

1. Otdel antibiotikov Kontrol'nogo instituta imeni A.A.  
Tarasovicha, Moskva.

19

CH

The making of high-quality glass. *Ac. F. Zak. Lashova*  
*Proz. 8, No. 6, 23-4 (1938).*—The making of Pb glass is  
 contrasted with that of lime-soda glass. Increased PbO  
 content leads to a decrease in viscosity which accelerates  
 melting in the glass furnace and is of assistance in the  
 formation of various articles from the melt. The ease of  
 grinding; Pb glass is superior to that for lime-soda glass.  
 A recommended glass compn. consists of  $\text{SiO}_2$  67-68,  
 R, 12-13, 17-20 23-25%  
 Marshall Kullig

22-11-1 METALLURGICAL LITERATURE CLASSIFICATION

ZAK, A.F.

Technology

Production of quality china dishes, Moskva, Gisleprom, 1951

Monthly List of Russian Accessions, Library of Congress, December, 1952 Unclassified

10696 The Strength of Glass Fibers. (Russian.) A. E. Zakharov  
and Yu. P. Manko. *Legkaya Promyshlennost*, v. 12, Jan 1951,  
p. 32-34.  
Tensile tests were made on a series of glass fibers and threads.  
Data are tabulated and charted.

10497: Influence of Defects in the Glass Mass on the  
Strength of Elementary Glass Fibers. (Russian.) A. I. Zak  
and L. P. Manko. *Lekha Promyshlennost*, v. 12, Feb. 1952,  
p. 38-40.  
Chemical nonuniformity and inclusions of gases and crystalline  
impurities were investigated with respect to the strength of  
glass fibers. Data are tabulated and charted.

(CA 47 no.18:9581 53)



ZAK, A. F.

USSR/Engineering - Glass

Oct 52

"Factors Determining Solidity of Glass Fiber,"  
A. F. Zak

"Zhur Tekh Fiz" vol 22, No 10, pp 1543-1551

Tests showed that solidity of thin glass fibers of similar chemical compound is defined by 3 factors: defects of glass mass; distortion of structural bonds, owing to reaction of chemical reagents; occurrence of superficial cracks during drawing of fibers. Received 11 Dec 1951.

236061

ZAK, A.P.; MAN'KO, Yu.P.

Effect of temperature on the deformation and strength of glass  
fibers. Zhur.tekh.fiz. 24 no.11:1983-1990 N '54. (MLRA 7:12)  
(Glass fibers)

ZAK, A. F.

"Experimental infection of tissue cultures under the effect of tetracyclines."

report presented at 4th Intl Cong, Hungarian Soc of Microbiologists, Budapest,  
30 Sep-3 Oct 64.

State Control Inst Medical Biological Preparations im Tarasevich, Moscow.

ZAK, A.F.

Tissue culture as a model for studying the biological activity  
of penicillins and macrolide antibiotics. Antibiotiki 10  
no.8:733-740 Ag '65. (MIRA 18:9)

1. Otdel antibiotikov Kontrol'nogo instituta meditsinskikh  
biologicheskikh preparatov imeni L.A. Tarasevicha.

L 35922-66 EWT(m)/EWP(e) WW/WH

ACC NR: AP6012132 (A) SOURCE CODE: UR/0413/66/000/007/0051/0051

INVENTOR: Aslanova, M. S.; Syritskaya, Z. M.; Feykners, S. Ya.;  
Zak, A. F.; Khomutov, A. I.

ORG: none

TITLE: Glass. Class 32, No. 180317 /announced by All-Union Glass Fiber  
Research Institute (Vsesoyuznyy nauchno-issledovatel'skiy institut steklyannogo volokna)

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki,  
no. 7, 1966, 51.

TOPIC TAGS: glass, glass composition, GLASS FIBER, GLASS PROPERTY

ABSTRACT: An Author Certificate has been issued describing the  
composition of glass containing  $P_2O_5$ ,  $SiO_2$ ,  $TiO_2$ ,  $Al_2O_3$ ,  $MgO$ , which  
is intended for the manufacture of glass fibers. To produce a fiber  
with high absorption properties, the following wt. (%) of the above  
components are suggested:  $P_2O_5$ , 40.0—55.0;  $SiO_2$ , 32.0—43.0;  $TiO_2$ ,  
4.0—6.0;  $Al_2O_3$ , 3.0—8.0;  $MgO$ , >1.0; and  $CaO$ , 3.0—5.0. [LD]

/Translation of abstract/

SUB CODE: 11/ SUBM DATE: 12Feb65

Card 1/1 ell

ZAK, A. F.

"Antibiotic therapy of experimental infections in tissue cultures."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Inst im Tarasevich, Moscow.

Yakobskan, L.M.; ZAK. A.F.

Acute toxicity of potassium salts of benzylpenicillin and tetracyclines in an experimental investigation. Antibiotiki 8 no.6:  
527-532 Je'63 (MIRA 17:3)

1. Otdel antibiotikov Kontrol'nogo instituta meditsinskikh biologicheskikh preparatov imeni L.A.Tarasevicha.

CHERNYAK, M.G., red.; ASLANOVA, M.S., red.; ZAK, A.V., red.;  
IVANOVA, A.I., red.; KUTUKOV, S.S., red.; PANASYUK, V.I.,  
red.; SHKOL'NIKOV, Ya.A., red.; VASKEVICH, D.N., red.;  
SHPAK, Ye.G., tekhn.red.

[Methods for testing and quality control of fiber-glass materials]  
Metody issledovaniia i kontrolya steklovochnistykh materialov;  
sbornik statei pod red. M.G. Cherniaka. Moskva, Goskhimizdat,  
1963. 92 p. (MIRA 1616)

I. Vsesoyuznyi nauchno-issledovatel'skii institut stekliannogo  
volokna.

(Glass fiber industry--Testing)



PHASE I BOOK EXPLOITATION

SOV/6268

Zak, Aron Faylyshevich

Fiziko-khimiicheskiye svoystva steklyannogo volokna (Physicochemical Properties of Glass Fibers) Moscow, Rostekhzdat, 1962. 224 p.  
Errata slip inserted. 2500 copies printed.

Reviewers: M. S. Aslanova and A. I. Ivanova; Ed.: N. N. Dukhovnyy;  
Tech. Ed.: L. A. Trishina

**PURPOSE:** This book is intended for engineering and scientific personnel of the glass-fiber industry. It can also be used by students of institutions of higher learning and by consumers of glass-fiber and glass-reinforced plastic products.

**COVERAGE:** The book deals with existing glass-fiber technology. The more important properties of glass fibers and glass-fiber products and their applications are given in detail. The author thanks Yu. P. Man'ko, M. S. Aslanova, and M. G. Chernyak. There are 99 Soviet and 50 non-Soviet references.

Card 1/1,

ZAK, Aron Faybyshevich; ASLANOVA, M.S., retsenzent; IVANOVA, A.I.,  
retsenzent; DUKHOVNIY, F.N., red.; TRISHINA, L.A., tekhn.  
red.

[Physicochemical properties of glass fibers]Fiziko-  
khimicheskie svoistva steklianogo volokna. Moskva, Rostekh-  
izdat, 1962. 224 p. (MIRA 15:11)

(Glass fibers)

ZAK, A.F.

Toxicity of antibiotics in cultures of chick embryo fibroblasts.  
Antibiotiki 6 no.3:246-251 Mr '61. (MIRA 14:5)

1. Otdel antibiotikov (zav. - prof. I.M.Yakobson) Kontrol'nogo  
instituta meditsinskikh biologicheskikh preparatov imeni A.A.  
Tarasevicha.

(ANTIBIOTICS)

(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)

LISHANSKIY, I.S.; ZAK, A.G.; D'YAKONOV, I.A.; ALIYEVA, T.G.

Synthesis of ethyl ester of 2-vinylcyclopropanecarboxylic acid.  
Zhur. org. khim. 1 no.7:1189-1193 J1 '65.

(MIRA 18:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR i Leningrad-  
skiy gosudarstvennyy universitet.

LISHANSKIY, I.S.; ZAK, A.G.; FEDOROVA, Ye.P.; KHACHATURCV, A.S.

Polymerization of vinylcyclopropene derivatives with polar ring substituents. Vysokom. soed. 7 no.6:966-971 Jo '65. (MIRA 18:9)

1. Institut vysokomolekul'yarnykh soedineniy AN SSSR.

ACCESSION Nr. AF4022930

8/0020/64/155/001/0136/0138

AUTHOR: Korotkov, A. A. (Corresponding member); Lishanskiy, I. S.; Zak, A. G.

TITLE: Polymerization of pentene-1 in the presence of isoprene on a complex catalyst

SOURCE: AN SSSR. Doklady\*, v. 155, no. 1, 1964, 136-138

TOPIC TAGS: polymerization, Ziegler catalyst, pentene 1, isoprene, polyisoprene, polypentene, refractive index, chain termination, pentene isoprene, homopolymer mixture, copolymerization, catalyst component ratio, catalyst active center

ABSTRACT: The copolymerization of olefins with dienes, specifically of pentene-1 with isoprene, with a Ziegler catalyst was investigated. The catalyst was prepared by the interaction of various amounts of  $TiCl_4$  with  $Al(iso-butyl)$  to form products with Al:Ti ratios from 1.0:1.0 to 2.0:1.0. With almost equal proportions of Al and Ti, isoprene polymerizes in high yield (about 90%) to form high molecular cis-1,4-polyisoprene; with Al:Ti = 2:1, the yield drops to 1.5%. The yield of pentene-1 polymer is low (5.5-11.5%) regardless of the catalyst component ratio. On polymerizing a mixture of monomers with Al:Ti = 1:1, the product polymer (a mixture of homopolymers) contains 83% isoprene; the yield and viscosity are lower

Card 1/2

ACCESSION NR: AP4022958

than for isoprene alone. The Al:Ti=1:1 catalyst is described as apparently having two types of active centers, one specific for isoprene and the second for pentene-1. When the Al component ratio is higher, the second type of active center is apparently completely disintegrated while the first is only partially disintegrated. A third type of active center, specific for pentene-1 is formed simultaneously, but is almost completely blocked because of strong adsorption of isoprene. Therefore polymerization of pentene-1 is almost impossible even with Al:Ti = 1:8 to 2:1. When isoprene is polymerized in the presence of pentene-1, isoprene chain termination is effected with an Al:Ti ratio above 1:2:1. The refractive indices of films of the polymers and copolymerization products were found additive, with  $n_D^{20}$  of polypentene = 1.4800 and of polyisoprene = 1.5218. (fig.) Orig. art. has: 1 figure and 3 tables.

ASSOCIATION: Institut vysshemolekulyarnykh soedineniy AN SSSR (Institute of high-molecular compounds, AN SSSR)

SUBMITTED: 20Sep65

DATE ACQ: 01Apr64

ENCL: 01

SUB CODE: CH

NO. REF. SOV: 005

OTHER: 004

Card 2/2

KOROTKOV, A.A.; LISHANSKIY, I.S.; ZAK, A.G.

Polymerization of 1-pentene in the presence of isoprene on a  
complex catalyst, Dokl. AN SSSR 155 no.1:136-138 Mr '64.  
(MIRA 17:4)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Korotkov).



YAKUBCHIK, A.I.; SPASSKOVA, A.I.; ZAK, A.G.; SHOSTATSKAYA, I.D.

Comparative study of the chemical structure of SIB and SKEM rubber  
by means of ozonolysis. Zhur. ob. khim. 28 no.11:3090-3096 N '58.  
(MIRA 12:1)

1. Leningradskiy gosudarstvennyy universitet.  
(Rubber, Synthetic) (Ozone)

SOV/79-28-11-44/55

AUTHORS: Yakubchik, A.I., Spasskova, A.I., Zak, A.G., Shostatskaya, I.S.

TITLE: Comparative Investigation of the Chemical Structure of the Rubbers SKB and SKBM by Ozonolysis (Sravnitel'noye izucheniye khimicheskogo stroeniya kauchukov SKB i SKBM metodom ozonoliza)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11, pp 3090-3096 (USSR)

ABSTRACT: In the USSR three types are manufactured: the sodium divinyl rubber (SKB), the potassium divinyl rubber (SKV), and the lithium divinyl rubber (SKBM) which differ with respect to their vitrification temperature and elasticity. A comparison is made between the chemical structure of SKB and that of SKBM rubbers. These two rubbers differ in their behaviour to frost. The chemical structure was investigated by ozonolysis. In the separation of the acids obtained in the oxidizing cleavage of the ozonides the distribution chromatography was used. The chromatograms of the acid ozonolysis products of the rubbers to be investigated were plotted. Basing on the chromatograms and the chemical characterization of some acids in the ozonolysis the following acids were found: succinic, butane-1,2,4-tricarboxylic, propane-1,2,3-tricarboxylic, hexane-1,x,y,6-tetracarboxylic, formic, and levulinic

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SOV/79-28-11-42/55

Comparative Investigation of the Chemical Structure of the Rubbers SKB and SKBM by Ozonolysis

acid, which were also found in the ozonolysis products of the other divinyl rubbers (Refs 3-5). In the figures 1-4 the acid chromatograms are given. According to these chromatograms the percentage of the carbon skeleton in the parts of diverse structure is calculated (Table 1). The ozonolysis products of the SKB rubber contain 77 % carbon skeleton, and those of the SKBM rubber 82.6 %. In the rubber SKBM parts of the same structure as in rubber SKB were found, however, the percentage of the carbon skeleton in the parts-1,4-1,4- and-1,4-1,2-1,4- of rubber SKBM is higher than of rubber SKB. The structure of SKBM is more regular. This property is one of the factors that determine its stability to frost.- There are 4 figures, 4 tables, and 15 references, 10 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

Card 2/3

ZAK, H. G.

AKHVOJEN, V.A.; GRENBERG, Ye.I.; GENIS, M.Ya.; FEYGINA, M.M.  
ZAKHAROVA, V.S.; KOVALEVA, R.A.; ZALEVSKAYA, T.N. SHASHKIN,  
M.A.; KOVALENKO, P.N.; ZAK, A.G.; AKHMETOVA, S.A.; MOSTRYUKOV,  
P.M.; VEYSEYSKAYA, N.D.

Brief reports. Zav.lab. 23 no.7:801-802 '57.

(MIRA 10:8)

1. Institut geologii rudnykh nesteroshdeniy, petrografii, mineralogii  
i geokhimii AN SSSR (for Akhvojen) 2. Dnepropetrovskiy Truboprolatnyy  
zavod imeni V.I. Lenina (for Grenberg, Genis) 3. Angarskiy remontno-  
mekhanicheskiy zavod (for Shashkin) 4. Rostovskiy gosudarstvennyy  
universitet (for Kovalenko) 5. Karagandinskiy zavod sinteticheskogo  
kauchuka (for Zak, Akhmetova, Mostryukov, Veyseyskaya).  
(Chemistry, Analytic)

ZAK, A.I.; KADANOV, B.N.

Hydrogen overvoltage on aluminum and the inclusion of an alkaline metal. Elektrokhimiia 1 no.1:63-71 Ja '65. (MIRA 18:5)

1. Institut elektrokhimii AN SSSR.

BARELKO, E. V. : ZAK, A. I.: KABANOV, B. N.

Electrochemistry

Methods of rapid electrochemical measurements,  
Trudy Inst. fiz. khimii An SSSR No. 1, 1952.

Monthly List of Russian Accessions, Library of Congress,  
December, 1952. UNCLASSIFIED.

ZAK, A L

ZAK, A.L.

~~Economy in the construction of tall buildings. Gor'kovsk. Mosk.~~  
25 no.6:14-16 Jo '51. (MLRA 10:9)

1. Starshiy ekonomist Moskovskoy gorodskoy kontory Prombanka.  
(Construction industry--Costs)

ZAK, A. M.

32529. ZAk, A. M. Vysokoproizvoditel'nyy matchik dlay narezaniya rez'b/ v  
nirzhaveyushchey stali. Stanki i instrument, 1949, No. 10, s. 21.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44



17

The viscosity and expansion of glass in the softening region. A. L. ZIL. Trans. State Inst. Testing Building Materials and Glass (Moscow) No. 20, 13 (in Russian 25) (1964). The viscosity of 9 crown glasses were detd by the increase in length of a loaded glass rod at const. temp. All the glasses showed breaks in the viscosity curve in the region 400-700° at a viscosity of  $10^{10}$  C. G. S., corresponding to the change from viscous liquid to brittle solid, and at  $10^{14}$  C. G. S., corresponding to the start of dev. Curves for tempered glass are similar, but the breaks are at lower temps. A. C. Hinton

19

CA

Influence of salt and sulfate on window-glass crystallization. A. P. ZAK AND S. I. IOVA. *Keram. i Staklo* 7, No. 6, 23-6(1931). Sulfates and chlorides present in a batch do not affect the process of fusing and degasification in a harmful way; on the contrary, they quicken the process. But the introduction of chloride into the batch in a quantity exceeding 2% sometimes causes a dimming of the glass. Since natural soda, often containing impurities in the form of sulfate and chloride, is used in the glass industry, the study of the influence of these impurities on glass crystal. is of great importance. The introduction of NaCl 0.5-5% and of Na<sub>2</sub>SO<sub>4</sub> 0.5-8% does not influence the speed of crystal. at 800-1000°. The introduction of these impurities, in the given quantities, does not create any phenomenon of opalescence or of increasing crystal.

M. V. KOSOV.

ASR SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND COLUMNS		PROCESS AND OPERATING NOTES		17																
<p>The effect of rocks on the process of glass melting and on some physico-chemical properties of glasses. A. P. Zak. <i>Mon. Phys. Phys.-Chem. Glass (Moscow)</i> 37 (1941), Special no. 3, 5. Three kinds of glass of the following composition were studied:</p> <table border="1"> <tr> <td>1</td> <td>SiO<sub>2</sub> 60%</td> <td>R<sub>2</sub>O<sub>3</sub> 5.0%</td> <td>RO 11%</td> <td>RO15%</td> </tr> <tr> <td>2</td> <td>SiO<sub>2</sub> 61%</td> <td>R<sub>2</sub>O<sub>3</sub> 10.0%</td> <td>RO 11%</td> <td>RO15%</td> </tr> <tr> <td>3</td> <td>SiO<sub>2</sub> 60%</td> <td>R<sub>2</sub>O<sub>3</sub> 15.0%</td> <td>RO 11%</td> <td>RO15%</td> </tr> </table>						1	SiO <sub>2</sub> 60%	R <sub>2</sub> O <sub>3</sub> 5.0%	RO 11%	RO15%	2	SiO <sub>2</sub> 61%	R <sub>2</sub> O <sub>3</sub> 10.0%	RO 11%	RO15%	3	SiO <sub>2</sub> 60%	R <sub>2</sub> O <sub>3</sub> 15.0%	RO 11%	RO15%
1	SiO <sub>2</sub> 60%	R <sub>2</sub> O <sub>3</sub> 5.0%	RO 11%	RO15%																
2	SiO <sub>2</sub> 61%	R <sub>2</sub> O <sub>3</sub> 10.0%	RO 11%	RO15%																
3	SiO <sub>2</sub> 60%	R <sub>2</sub> O <sub>3</sub> 15.0%	RO 11%	RO15%																
<p>These glasses were melted from pure raw materials and also from rocks. Twenty, 40 and 60% nephelite or volcanic ash were added. The rate of the formation of glass was detd. at 1300° for all glasses. The time necessary for the completion of the formation of glass was less than half the time required for mfg. glass from pure raw materials. Volcanic ash accelerated the formation of glass also, al-</p>																				
<p>though not to such an extent as nephelite. Batches were simultaneously heated to 1400° to det. the time necessary to obtain melts free from bubbles; this temp. was kept for 2 hrs., after which the melts were cooled at the same rate and the no. of bubbles was determined by projection on a screen. The refining time was prolonged by rocks, glass containing 20% nephelite contained 2800 bubbles, the same glass without nephelite contained only 1000. The tendency of the glass to devitrify is not changed when rocks are introduced. Light absorption is lowered much more by nephelite than by volcanic ash. M. V. Kondolov</p>																				
<p>ASS. SEC. METALLURGICAL LITERATURE CLASSIFICATION</p>																				
<p>FROM STUDIES</p>		<p>RESEARCH</p>		<p>RESEARCH</p>																
<p>RESEARCH</p>		<p>RESEARCH</p>		<p>RESEARCH</p>																

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19

PRODUCTION AND PROPERTIES INDEX

Production of blown glass containers on the VVF glass-blowing machine. A. P. Zak. *Izvestiya* 1945, No. 10, 11, 16-20. In the production of blown glass objects in the "VVF" machine, best results were obtained with glass contg.  $\text{SiO}_2$  71.2,  $\text{Al}_2\text{O}_3$  2.3,  $\text{CaO}$  6.6,  $\text{MgO}$  3.4,  $\text{K}_2\text{O}$  1,  $\text{Na}_2\text{O}$  14.0-14.5, and  $\text{H}_2\text{O}$  1%. Addition of  $\text{Al}_2\text{O}_3$  and  $\text{MgO}$  improves the working properties of glass and decreases the degree of its crystals. The presence of comparatively large contents of  $\text{K}_2\text{O}$  and  $\text{Na}_2\text{O}$  improves the glass. Addition of  $\text{H}_2\text{O}$  (not more than 1%) improves the working properties of glass, accelerates its heating, and increases its luster. The presence of  $\text{K}_2\text{O}$  insures a better decolorization. In vacuum feeding the contents of leaves can be decreased by approx. 1%. The temp. of the working section of the furnace is related closely to the temp. of the drop and to the temp. of the glass. The max. permissible variation in the temp. of the feeder is  $\pm 5^\circ$ . The optimum temp. of the drop is  $1080-900^\circ$  at  $1400^\circ$  temp. of the heating section of the furnace, a  $1300-1200^\circ$  temp. of the working section, a  $1200^\circ$  temp. of the furnace temp. of the canal, and a  $1135-45^\circ$  temp. of the dish. The difference in the temps. of the individual layers does not exceed  $10^\circ$ . The height of the glass mass should not exceed 110-15 mm. For the manufact. of thin-walled objects, the method of vacuum feeding proposed by Mannaev is recommended.

A. K. Hren

ZAK, A. P.

Zak, A. P. and Yakovleva, M. A. - "Certain properties of simple glass fiber," In the symposium: Fiz.-tekhn. svoystva i primeneniye steklovoloknistykh materialov, Moscow-Leningrad, 1949, p. 15-33

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

ZAK, A.I.

Mean runoff and its variability in rivers of the Armenian  
S.S.R. Izv. AN Arm. SSR. Ser. tekhn. nauk 15 no.1:53-64 '62.  
(MIRA 16:7)

1. Upravleniye gidrometeorologicheskoy sluzhby Armyanskoy SSR.  
(Armentia—Runoff)

KITAYGORODSKIY, I.I., doktor tekhn. nauk, prof.; KACHALOV, N.N., prof.;  
VARGIN, V.V., doktor tekhn. nauk, prof.; YEVSTROP'YEV, K.S.,  
doktor tekhn. nauk, prof.; GINZEURG, D.B., doktor tekhn. nauk,  
prof.; ASLANOVA, M.S., doktor tekhn. nauk, prof.; GURFINKEL', I.Ye.,  
inzh.; ZAK, A.P., kand. tekhn. nauk; KOTLIAR, A.Ye., inzh.; PAVLUSH-  
KIN, N.M., doktor tekhn. nauk, prof.; Sentyurin, G.G., kand. tekhn.  
nauk; SIL'VESTROVICH, S.I., kand. tekhn. nauk, dots.; SOLINOV, F.G.,  
kand. tekhn. nauk; SOLOMIN, N.V., doktor tekhn. nauk, prof.; TEMKIN,  
B.S., kand. tekhn. nauk; GLADYSHEVA, S.A., red. izd-va; TEMKINA, Ye.L.,  
tekhn. red.

[Glass technology] Tekhnologiya stekla. Izd.3., perer. Moskva, Gos.  
izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 622 p.  
(MIRA 14:10)

1. Chlen-korrespondent AN SSSR (for Kachalov).  
(Glass manufacture)

ZAK, A.F.; KLIMOVA, N.Ye.

Acute toxicity of colimycin, mycerin and monomycin according to  
data from various tests. Antibiotiki 9 no.1:73-76 Ja '64.

(MIRA 18:3)

1. Otdel antibiotikov (zav. - prof. L.M.Yakobson) Kontrol'nogo  
instituta imen' Tarasovicha, Moskva.



ZAK, A-Yo.

(7)

C. A. V-48  
Jan 10, 1954  
Fats, fatty oils  
Waxes & Detergents

Experiment on refining and hydrogenation of rape oil 99  
Kharkov Fat Combine. A. M. Zharskiy, T. M. Novikov,  
T. E. Romanova, S. D. Kopylenko, P. I. Karimskiy,  
A. Ya. Zak and T. I. Gidkaya. *Masloholno-Zhirovaya*  
*Prom.* 18, No. 7, 10-7 (1953). The oil was washed with  
H<sub>2</sub>SO<sub>4</sub> (d. 1.82), neutralized with 30-40% lye, boiled with  
1-1.5% solu. NaCl, and settled 8-10 hrs. The fat is  
bleached at 160-170° with active C and fuller's earth (0.7-1  
and 3-3.3 kg. ton, resp.) and in an atm. of H<sub>2</sub>. Hydrogena-  
tion is with Ni formate catalyst and at 245-250° to a m.p. of  
32-6° (1-6 hrs.).  
Vladimir N. Krukovsky

AYDAROV, T.K.; ZAK, A.Ye.; SAFONOVA, Ye.S.

Effect of certain elements in determining alkaline metals by the method  
of flame photometry. Zav.lab. 25 no.3:269-271 '59. (MIRA 12:4)  
(Alkaline metals)  
(Spectrophotometry)

5(4)

AUTHORS: Aydarov, T. K., Zak, A. Ye.,  
Safonova, Ye. S.

SOV/32-25-3 1/62

TITLE: On the Influence Exercised by Some Elements Upon the  
Determination of Alkali Metals According to the Method of  
Flame-photometry (O vliyaniy nekotorykh elementov pri  
opredelenii shchelochnykh metallov metodom plamennoy  
fotometrii)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25. Nr 3, pp 269-271 (USSR)

ABSTRACT: This paper was presented at the XII Vsesoyuznoye soveshchaniye  
po spektroskopii (XII All-Union Conference on Spectroscopy)  
in Moscow, in November 1958. Since flame-photometry is applied  
for lithium and potassium determinations in the accumulator  
industry the influence exercised by the accompanying elements  
upon the determination of alkali metals and a possibility of  
eliminating this influence were investigated. Industrial samples  
of potassium and sodium electrolytes with lithium additions,  
pulverized graphite and nickel masses (with Li additions), as  
well as solutions containing salts of cadmium, nickel and  
potassium were investigated. A unit of interference eliminators  
of the type of the Ivanov flame-photometer (Ref 2) was used as

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On the Influence Exercised by Some Elements Upon  
the Determination of Alkali Metals According to the  
Method of Flame-photometry

507/32-25-3-3/62

well as an air-acetylene flame. The schematical drawings of the torch and the atomizer are given (Fig 1). For the purpose of error determination parallel analyses were performed by means of the ISP-51 spectrograph. It was found that within the concentration range of from 10-100 mg/Li Na and Ni exercise no influence while potassium causes a strong increase in the lithium radiation intensity at a content of 10 mg/L (Fig 2). An increase in the acidity of the test solution reduces the radiation intensity of Li (Fig 3). Nickel and cadmium influence the determination of potassium (20-40 mg/L ) only at very high concentrations. Nickel then intensifies potassium radiation and weakens cadmium radiation (Fig 4). For this reason a 100-fold dilution of the sample must be made in quantitative lithium and potassium determinations in potassium and sodium electrolytes. In cadmium-nickel solutions the dilution must be 25-fold. The calibration curves for the determination of lithium in sodium and potassium electrolytes are given. (Fig 5). There are 5 figures, 1 table, and 1 Soviet reference.

Card 2/2

KOZLOVSKIY, B.K., inzh., red.; GEYKO, N.F., inzh., red.; ZAK, B.O.,  
inzh., red.; PETROVA, V.V., red.

[Technical instructions for designing 750 mm gauge rail-  
roads. Approved by the State Committee for Construction of  
the U.S.S.R. July 18, 1963] Tekhnicheskie ukazaniya po pro-  
ektirovaniyu zheleznykh dorog kolei 750 mm. (SN 251-63).  
Utverzhdeny Gosudarstvennym kom' etom po delam stroitel'stva  
SSSR 18 iuliya 1963 g. Moskva, Gosstroi SSSR, 1964. 95 p.  
(MIRA 17:7)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po de-  
lam stroitel'stva. 2. Gosstroy SSSR (for Kozlovskiy, Geyko).  
3. Gosudarstvennyy institut tekhniko-ekonomicheskikh izyska-  
niy i proyektirovaniya zheleznodorozhnogo transporta (for  
Zak).

VERTSMAN, G.Z., kand. tekhn. nauk; PANTELEYEV, P.I., kand.  
tekhn. nauk; GOMOLYAKO, I.M.; TAL', K.K.; GUSEVA, K.G.;  
LUGOVOY, P.A.; MASSAN, A.M.; GALKIN, N.V.; SAPHINGINA, G.M.;  
CHESNOKOV, D.S.; DROZDKOV, V.I.; IZYUNOV, P.S.; ZAK, B.O.;  
KOROGID, P.Ye.; MAKSIMOVICH, L.N.; ZBOROVSKAYA, M.I.;  
PAVLOVSKAYA, S.A.; BORISOV, A.V.; SELIVANETS, N.Ye.; ITKES,  
V.M.; YATSKEVICH, Ya.D.; KOZYRSKIY, N.P.; NIKITIN, V.D.;  
NEKLEPAYEVA, Z.A., inzh., red.; MEDVEDEVA, M.A., tekhn.red.

[Design and planning of railroad stations and junctions]  
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SOURCE: East European Accessions List, (EEAL), Library of Congress  
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PHASE I BOOK EXPLOITATION SOV/5747 17

- Vsesoyuznoye soveshchaniye po redkim shchelochnym elementam. 1st, Novosibirsk, 1958.

Redkiye shchelochnyye elementy; sbornik dokladov soveshchaniya po khimii, tekhnologii i analiticheskoy khimii redkikh shchelochnykh elementov, 27-31 yanvarya 1958 g. (Rare Alkali Elements; Collection of Reports of the Conference on the Chemistry, Technology, and Analytical Chemistry of Rare Alkali Elements, Held 27-31 January, 1958) Novosibirsk, Izd-vo Sibirskogo otd. AN SSSR, 1960. 99 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Sibirskoye otdeleniye. Khimiko-metallurgicheskiy institut.

Resp. Ed.: T. V. Zabolotskiy, Candidate of Technical Sciences; Members of Editorial Board: A. S. Mikulinskiy, Professor, Doctor of Technical Sciences, A. T. Logvinenko, Candidate of Technical Sciences, P. P. Barkova, Candidate of Chemical Sciences; Ed.: V. M. Bushuyeva; Tech. Ed.: A. F. Mazurova.

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Rare Alkali Elements; Collection (Cont.)

17  
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PURPOSE : This book is intended for chemical engineers and technicians working in metallurgical and mining operations and related enterprises.

COVERAGE: The collection contains reports which deal with the physical and analytical chemistry of rare alkali elements and their compounds and their reactions with mineral ores and salts. Methods of extraction and modern analytical techniques and equipment are also discussed. No personalities are mentioned. References accompany individual articles.

TABLE OF CONTENTS:

Urazov, G. G. [Deceased], V. V. Plyushchev, Yu. P. Simakov, and I. V. Shakhno [Moskovskiy institut tonkoy khimicheskoy tekhnologii im. (M.V.) Lomonosova - Moscow Institute of Fine Chemical Technology ineni M. V. Lomonosov]. High-Temperature Modification of Specimens 5

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Rare Alkali Elements; Collection (Cont.)

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of Sciences USSR]. Binding Building Material From Industrial Wastes

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Poluektov, N. S., and M. P. Mironova. [Institut obshchey i neorganicheskoy khimii AN Ukrainskoy SSR - Institute of General and Inorganic Chemistry of the Academy of Sciences Ukrainskaya SSR]. Use of Photometry-of-Flame Methods in Analyzing Ores and Salts of Rare Alkali Metals

63

Zak, B. M. [Irkutskiy Institut redkikh metallov - Irkutsk Institute of Rare Metals]. Methods of Determining Rare Elements

71

Zakharova, N. F., and Ts. A. Leyderman. [Institut obshchey i neorganicheskoy khimii AN SSSR - Institute of General and Inorganic Chemistry of the Academy of Sciences USSR]. Methods of Quantitative Spectral Determination of Rare Alkali Metals in Ores and Evaluation of the Impurity Content in Ore Preparations

75

Card 4/5

8/137/61/000/010/053/056  
A006/A101

AUTHOR: Zak, B.M.

TITLE: Methods of determining rare elements

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 3, abstract 10K13  
(V sb. "Redk. shchelochn. elementy", Novosibirsk, Sib. ot1. AN SSSR,  
1960, 71 - 74)

TEXT: To determine small amounts of Li in Li-ores, the sample is processed with fluorine salts. Subsequently the metal fluorides are converted into chlorides by evaporation with HCl. The Li content in the insoluble residues was determined by the spectral optical method, within 0.006 - 0.012% Li<sub>2</sub>O, when its content in the sample was up to 1%. Alkali metals are separated from elements of the II and III analytical groups by passing 0.3 - 0.4 of a solution, normal in respect to HCl, through a column with a KY -1 (KU-1) cationite in hydrogen form. The salts of the alkali metals remain in the solution, while Ca, Mg, Fe and partially Al are absorbed by the cationite. The separation of the alkali metals from Li is performed by conventional methods. Li may be determined by the radiometric method with the aid of a <sup>35</sup> radioactive isotope. Li<sup>+</sup> is pro-

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Methods of determining rare elements

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AC06/A101

cessed with sulfuric acid, its excess is eliminated by evaporation and the activity of the dry residue with the  $K_2SO_4$  filler is measured. The recommended method makes it possible to determine 0.03 - 0.1% Li with 25% (relative) error and 0.1 - 1% Li with 7 - 8% (relative) error. To determine Cs  $< 10$  mg, the author employed its precipitation in the form of  $Cs_3Bi_2I_9$  with the aid of  $Cs^{134}$  radioactive isotope. A standard Cs chloride solution was used as admixture. It contained  $Cs^{134}$  with a 1:8000 ratio of active to stable Cs. There are 5 references.

L. Vorob'yeva

[Abstracter's note: Complete translation]

Card 2/2



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Chair of Normal Physiology, Kuban Med Inst (Krasnodar)

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Sov. Fiziologicheskii Zhurnal Vol 30, No 5, 1941

ZAK, B. - ROUS, J.

Casting forks into chemically hardened mold banks. p. 304

SLEVARENSTVI. (Ministerstvo tezkého strojírenství a Československá vědecká  
technická společnost pro hnutí a slevarenství) Praha, Czechoslovakia.  
Vol. 7, no. 7, June, 1959

Monthly list of East European Accessions (EEAI) LC Vol. 8, no. 12,  
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From the history of the Smela Sugar Factory. Sakh. prom. 31 no.12:  
25-30 D '57. (MIRA 11:1)

1. Smelyanskiy sakharney zavod (for Zak). 2. Kiyevskiy tekhnologicheskoy institut pishchevoy promyshlennosti imeni Mikoyana (for Kulinich).

(Smela—Sugar industry)

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Use of cutter shovels for handling dirt and limestone wastes.  
Sakh. prom. 33 no.4:35-37 Ap '59. (MIRA 12:6)

1. Smelyanskiy sakharnyy zavod.  
(Smela--Sugar industry--Equipment and supplies)  
(Shoveling machines)

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Optimum arrangement for the effination of brown sugar. Sakh. prom.  
32 no.2:29-31 F '58. (MIRA 11:3)

1. Smelyanskiy sakharanny zavod.  
(Sugar manufacture)

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PIEKACZ, Kazimierz Andrzej; JELJASZEWICZ, Janusz, and ZAK, Cecylia; Department of Medical Microbiology, Academy of Medicine (Zaklad Mikrobiologii Lekarskiej AM) Head Prof Dr E. MIKULASZIK, Warsaw; and Department of Bacteriology, National Hygiene Institute (Zaklad Bakteriologii Panstwowego Zakladu Higieny, Head (Kierownik) Prof Dr E. WOJCIECHOWSKI, [Warsaw.]

"Mixed Staphylococcal Infection in Rabbits."

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 18, No 1, 1966; pp 7-14.

Abstract [English summary modified]: Intravenous inoculation of rabbits with various strains of staphylococci generally resulted in colonization of the kidneys with virulent strains and near exclusion of non-pathogenic ones, but the coagulase production seems relatively unrelated to virulence in these experiments. Four tables; 6 Polish and 15 Western references.

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ZAK, Czeslaw

POLAND

ZAK, Czeslaw

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